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ABSTRACT

The phrase "all things useful and all things ornamental," coined by Benjamin Franklin, describes the stated mission of most of the approximately 6,000 educational academies flourishing in America in the mid-19th century. Built upon the roots of Latin grammar schools, the academies evolved to include courses in many areas, from classical studies to mathematics and science and trade and industrial education. An examination of vocational education in 25 private academies located in New Jersey, New York, and Pennsylvania between 1840 and 1860 showed that the academies, if not especially effective as instruments for vocational instruction in certain occupational fields, have still made an important contribution to the vocational cause. They mobilized the transition of vocational preparation from its traditional locus in the work place toward a much greater emphasis on school-based programs. Responding to the demands of technological change, academies were among the vanguard of educational institutions attempting to provide their students with skills and competencies useful in the industrial and commercial world. They led the experimental educational movement toward more practical education, which is evident in vocational education today. (KC)

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VOCATIONAL EDUCATION IN THE
19th CENTURY AMERICAN ACADEMY

by

Gordon F. Law

Paper Presented at the
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VOCATIONAL EDUCATION IN THE
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Gordon Law

INTRODUCTION

The American academy of the mid-1800's has been described as a transitional bridge between the elitist Latin grammar school and the public high school. Reaching its zenith in numbers and prestige in the decade before the Civil War, the private academy soon lost its pre-eminence to other forms of schooling. In 1856, the total number of academies in the United States was reported to exceed 6,000, enrolling more than 250,000 students; (1) but by 1880, when virtually all states and territories had established tax supported high schools, the great academy movement had run its course.

Many academies established during the late 1700's and first half of the 19th century produced unique and innovative approaches to secondary education. Upon a Latin grammar school foundation was superimposed a multitude of new courses and programs designed to help students find success in an environment of social mobility and commercial opportunity. Typically private, non-sectarian, coeducational or catering individually to either boys or girls, these multi-purpose institutions combined instruction in the classics with courses in history and geography, art and music, modern foreign languages, theoretical and applied aspects of mathematics and science, and, in a significant number of cases, they also provided vocational preparation. (2)

Recognizing the limited economic benefits of a strictly classical education, yet hoping to instill the cultural and social values associated with such learning, citizens responsible for the establishment of new academies sought to insure that students would have access to education that was both useful and ornamental.

This term, "all things useful and all things ornamental," was coined by Benjamin Franklin. His 1749, "Proposals Relating to the Education of Youth in Pennsylvania," (3) represented an important source of inspiration for the American academy movement. A former apprentice and journeyman printer who had elevated his intellectual range through extensive self study, Franklin was an early proponent of open-ended continuing education that would expose individuals to all aspects of cultural and practical learning. Franklin's model for an ideal academy stressed the need to prepare students for a rapidly changing world. Specifically, he endorsed the study of modern languages, history and geography, and much more work in mathematics and science. He also made strong recommendations that such study should be directed toward practical applications in farming, commerce, transportation and industry.

Franklin's vision of an all-purpose school for all people was far ahead of its time, but his ideas, later exemplified in the goals of comprehensive community colleges, were not readily accepted in his time. Although many academies included the words, "useful and ornamental," in their mission statements, none came close to realizing the Franklin ideal. One of the cruel ironies of this failure was the fact that the Philadelphia College, Academy and Charitable School which Franklin helped establish in 1751 was quickly channeled by its board and administration into a strictly academic

institution, which eventually became the University of Pennsylvania.

Purpose of the Study

The central purpose of this investigation has been to explore the nature and extent of vocational education in 25 private academies located in New Jersey, New York State and Pennsylvania, mainly for the period between 1840 and 1860.

Four subordinate questions have been addressed:

1. What specific vocational education courses and programs were offered?
2. What state or regional differences existed, and what conditions may have contributed to them?
3. What effect did the multi-purpose mission of academies have on the later development of educational institutions in the United States?
4. What significant role, if any, did academies play in the history of vocational education in the United States?

RELATED LITERATURE

Vocational education historians, including Barlow, Beaumont, Bennett, Hamlin, Mays, McCarthy and Roberts, have given considerable attention to practical education in 19th century America; but aside from Beaumont's statement that business education was offered in a variety of private business schools and academies, (4) the vocational role of the academy is missing from their literature.

Among the 19th century aspects of vocational education treated by these historians are apprentice training, continuation, industrial and pauper schools, manual labor and manual training movements, lyceums and mechanics

institutes, trade schools and technical institutes, domestic economy and domestic science as forerunners of home economics, the Lancastrian and Oswego movements, the Land Grant College Acts, and the development of specialized schools in such fields as business and commerce, fashion design, scientific and practical agriculture, and the emerging technologies. But the special role of the American academy as an institution involved in vocational instruction has been generally overlooked.

One of the reasons for this neglect may be that vocational education historians have typically treated some specialized aspect of vocationalism; Barlow (5) and Bennett (6), for example, have written excellent chronicles on industrial education, but their treatment of other fields of vocational service have been more limited. Hanlin (7), as well as Stimson and Lathrop (8), have devoted their attention to agricultural education, while Beaumont (9) dealt with business and commerce and thers have concerned themselves with the federal support of vocational education. Historians of American Education, including Briggs, Church, Cremin, Cubberly, Good, Meyer and Monroe, have all had something to say about the academy movement. But as cited by Bailyn (10), many educational historians have been such strong advocates of public education that they neglected other routes to learning, such as apprentice training, industry sponsored schools, or the private academy.

Brown's, The Making of Our Middle Schools (11) was an exception. Published in 1903, Brown's treatise on secondary education devoted five chapters to the rise and fall of academies. Described by Cremin (12) as the sole extant effort as a general history of American secondary education, Brown's volume depicts the academy as an important element in the transition from Latin school to free public high school.

Among the topics treated by Brown are: the close parallel of curricular offerings between private academies and public high schools; the significant role academies had in the preparation of elementary school teachers; the importance of emerging state systems of education; and how both academies and public high schools underwent changes in mission during the latter part of the 19th century.

Monroe's textbook on the history of education (13), first published in 1905, included a brief section on the American academy movement in a chapter entitled, "Realistic Education." Here Monroe sketches the "Real-Schulen" movement in Germany, beginning with the work of Hecker in 1747. He also mentioned the role John Milton played in the development of English dissenting academies in the late 1600's, and how both of these activities, although coming from different philosophical perspectives, seemed to have been contributors to Franklin's ideas for the education of youth in Pennsylvania.

The position that academies were terminal institutions, free from the influence of colleges, was taken by Briggs in his 1934 text on secondary education:

As the chief function of the academy was first to give a practical education rather than to prepare boys for college admission, the curriculum developed with entire independence of the requirements by higher education. (14)

This unequivocal statement smacks of oversimplification. It implies that academies were exclusively boys' schools when, in fact, their enrollments were rather evenly divided among boys and girls. It also fails to acknowledge that virtually all academies were sensitive to the specific courses and competencies then required by colleges. A more accurate statement might have been that academies provided both practical and college

preparatory instruction for both boys and girls.

Of more recent books, Good's History of American Education (15) has more to say about academies than most. Calling the academy a transitional institution, providing the bridge from the Latin grammar school to the public high school, Good reports that academies in New York State were especially strong and numerous. He also contributes information about the early lead of New England academies and how they gave way to public high schools some twenty to thirty years before the rest of the country. Reporting that some academies were proprietary schools run by stock companies, Good stressed the diversity and independence of academies in various parts of the country.

Of published materials relating directly to the academy movement, two have been especially valuable to this study. They are Miller's 1922 doctoral dissertation for Teachers College, Columbia University, entitled, The Academy System of the State of New York, and Sizer's book entitled, The Age of the Academies.

Miller's work, which has been reprinted in book form by Arno Press (16), contains a wealth of statistical data, derived mainly from reports, submitted by incorporated academies to the New York State Board of Regents. Of special interest are the cataloging of more than 400 academies which reported to the Regents during the 1800's; chronological and alphabetical listings of courses taught in academies (more than 150 courses); and tables that show bookkeeping to have been taught in 158 academies in 1860, followed in frequency by surveying in 123, and principles of teaching in 108 schools. According to these data, agriculture was not listed and domestic economy was taught in only four academies; carpentry,

the lone skilled trade listed, was found in one.

Since the Miller study drew a large proportion of its data from Regents' records, which were in turn compiled from reports submitted by incorporated academies, there still exists a lack of information regarding the large number of institutions that fell under a catch-all classification of "private, unincorporated and select schools." When we are informed that in 1850 2,777 such schools, enrolling 45,840 pupils, were reported to exist in New York State, the nature of the void is self evident.

Another mystery not clarified by Miller's data has to do with agriculture. Although no program in agriculture, similar to those offered in New Jersey, appears in the records, the course listings show that 35 incorporated academies were teaching agricultural chemistry in 1855.

Perhaps the most significant aspect of Miller's dissertation is the detailed chronicle of legislative and administration actions that beginning in 1787 produced an organized state system of education headed by a Board of Regents. This Board, by the time of the Union School District Law of 1853, had established so much control over both public and private high schools and academies that their curricula had become virtually interchangeable. The famed "Regents Diploma," still considered a standard for the college preparatory students, was a product of this domination.

The Age of the Academies, edited by TheodoreSizer (17), is described in Cremin's preface as an effort to study the uniqueness and significance of the academy movement irrespective of its effect on the development of public education. Cremin also mentions and apparently agreed with Sizer that the passing of the academies was not a triumph of democracy over elitism, but rather one aspect of post-Civil War urbanization (18).

Following Sizer's 50-page "Interpretation," the book is organized into six sections that include: Milton's, "Of Education"; Franklin's, "Proposals Relating to the Education of Youth in Pensilvania"; articles in support of academies and in opposition; descriptions of academy life; the 1856 Catalogue of Gould's Classical and English Academy of Bethel, Maine; and the National Education Association's 1885 position on, "The Place and Function of the Academy."

Sizer's introductory essay discusses the English roots of the American academy, Milton's influence on Franklin, and the failure of Franklin's dream to materialize in Philadelphia. The paucity of records, multiplicity of financial arrangements and the special roles of state government in Tennessee and New York are also discussed.

Stating that the curriculum of the high school was quite similar to that of the academy, Sizer went on to say that the only real difference was that high schools borrowed few of the unusual or vocational subjects found in academies, "subjects such as pedagogy, psychology and agriculture"... "Thus, the academy can be defined as an institution with a curriculum more closely attuned to the wants of the nineteenth century American than of its predecessor and one in which every conceivable subject of possible intellectual or practical value was offered." (19)

METHODS

This exploratory study has employed three major steps of historical research, namely the collection of data, whenever possible from primary sources; analyses and classification of data; and the presentation of findings, together with interpretations of their significance.

The process of data collection has centered around a search for original

documents which would provide specific information regarding the organization, mission and curriculum of mid-19th century academies.

Primary sources, such as academy catalogs, board of trustees minutes, report cards and commencement programs, were sought in college, town and historical society libraries. Secondary sources, including education journals and newspapers of the period, were used in cases where primary materials could not be found.

A considerable body of data accumulated through prior research has also been helpful to this work. Miller's doctoral study of the academy system in New York State, although lacking descriptions of individual academies, has been an invaluable source of information concerning the dominant role of the Board of Regents, the names and locations of incorporated academies and dates of their incorporation, and the great array of courses taught in these institutions.

A number of other histories have provided perspective and, on occasion, specific data, useful to this investigation. Among these are Skillman's Biography of Lafayette College (20), a Bicentennial History of Northampton County in Pennsylvania (21), Allan Nevins' History of the University of Illinois (22), and Riddle's Two Hundred and Fifty Years of School History in Pennsylvania (23). Among the local histories examined were those of Orange County and Warwick, New York, (24) (25), Chester and New Brunswick, New Jersey (26) (27), and two histories of Newark Academy. (28) (29)

A total of 25 academies have been selected as the principal subjects for this investigation. Ten of these schools were located in New Jersey, eight in Pennsylvania, and seven in New York State.

Table 1 lists the academies used, together with their location, the year each was founded, when known, and the principal source of data for each.

TABLE 1 (A)
NEW JERSEY ACADEMIES

<u>Name</u>	<u>Location</u>	<u>Year Founded</u>	<u>Sources of Data</u>
Chester Institute	Chester	1854	History of Chester History of Morris County
Freehold Institute	Freehold	1844	1856 Catalog
Hightstown Classical Institute	Mount Holly	--	1864 Catalog
Morris Academy	Morristown	1791	1865 report card; History of Morris County
The Oaklands School	Burlington	--	1847 Catalog
Mt. Holly Institute	Mt. Holly	--	1861 Catalog
Newark Academy	Newark	1774	Two Histories; 1850 Catalog
Newark Wesleyan Institute	Newark	1848	1855 Catalog
Rutgers Academy	New Brunswick	1766	History of New Brunswick; History of Rutgers Uni- versity
West Jersey Collegi- ate School	Mt. Holly	1846	1849 Catalog

TABLE 1 (B)

ACADEMIES LOCATED IN NEW YORK STATE

<u>Name</u>	<u>Location</u>	<u>Year Founded</u>	<u>Sources of Data</u>
Delaware Academy	Delhi	--	1837 Catalog
Farmers Hall Academy	Goshen	1789	1844-1850 Board of Trustees Minutes
Newburgh Academy	Newburgh	1790	History of Orange County
Newburgh Institute	Newburgh	1837	History of Orange County
Susquehanna Seminary	Binghamton	--	1858 advertisement "Broadside"
Washington Academy (Later Seward Institute)	Florida	1811	History of Warwick Valleys
Warwick Institute	Warwick	1854	History of Warwick Valleys

TABLE 1 (C)

ACADEMIES LOCATED IN PENNSYLVANIA

<u>Name</u>	<u>Location</u>	<u>Year Founded</u>	<u>Sources of Data</u>
Arcadian Institute	Orwigsburg	--	Pennsylvania School Journal Feb. 1855
Cedar Hill Female Seminary	Mt. Joy	1837	PSJ Jan. 1852
Hopewell Classical & Mercantile School	Hopewell	1851	PSJ Dec. 1852
Ercildown Boarding School for Girls	Ercildown	1854	1860 Catalog
Fremont Academy	Pottstown	--	1849 Catalog
Bleck's Academy	Bethlehem	1837	History of Northampton County
Marietta Academy	Marietta	1845	PSJ Feb. 1852
Weaversville Academy	Allentown	1856	1858 Catalog

VOCATIONAL EDUCATION COURSES AND PROGRAMS

The first task in this section is one of definition. Specifically, what is to be considered a vocational education course; and what combination of vocational and related courses constitute a vocational education program?

Since the vocational designation was not in popular usage during the age of academies--the common descriptors of that period being "all things useful," "practical," or "preparation for the counting room"--it has been necessary to assign a somewhat adapted and abridged contemporary definition, as follows:

For the purpose of this investigation, vocational education means those courses and programs which appear to have been specifically designed to prepare students for gainful employment or proprietorship in skilled or technical occupations, and which by the standards of the time, were not considered to be professional or requiring a baccalaureate degree.

Using this definition as a guide, it has been possible to identify six occupational categories in which some form of vocational instruction took place in two or more of the academies studied. These categories are:

1. Agriculture
2. Business
3. Civil, Industrial or Mechanical Technology
4. Navigation
5. Surveying
6. Teaching

From analyses of curriculum offerings in the twenty-five academies under investigation, it was found that all but three provided some form of vocational instruction. Comprehensive programs, comprised of two or more vocational courses combined with related subjects, such as mathematics,

sciences, surveying or drawing, were far less common. Such concentrations were found to exist in agriculture, business, and teaching, but not in navigation, surveying or technology.

Table 2 illustrates the distribution of vocational education courses by occupational category:

TABLE 2
DISTRIBUTION OF VOCATIONAL EDUCATION COURSES
(BY OCCUPATIONAL FIELD)

<u>New Jersey Academies</u>	<u>Pennsylvania Academies</u>	<u>New York State Academies</u>
Chester (2,4,5)	Acadian (2,4,5,6)	Delaware (2,4,5,6)
Freehold (1,2,3,4,5,6)	Bleck's (2,4,5,6)	Farmers Hall (2,4,5)
Hightstown (2,4,5,6)	* Cedar Hill (2,6)	Newburgh Academy (2,4,5)
Morris (2)	Hopewell (2,4,5)	Newburgh Institute (2,4,5,6)
Mount Holly (None listed)	Fremont (2,5,6)	Washington Academy (None listed)
Oaklands (2)	Ercildown (2,5,6)	Susquehanna (2,4,5,6)
Newark Academy (2,3,4,5,6)	Marietta (2,4,5,6)	Warwick (2,4,5)
Newark Wesleyan (2,3,4,5,6)	Weaversville (2,4,5,6)	
Rutgers Academy (None listed)		
West Jersey (1,2,3,4,5)		

Number Code: 1-Agriculture, 2-Business & Commerce, 3-Technology (civil, industrial, or mechanical), 4-Navigation, 5-Surveying, 6-Teaching

* Cedar Hill Female Seminary listed a domestic department in its brochure, but provided no details of its curriculum.

A frequency count reveals that courses relating to business were taught in the largest number of academies, 22. Only two of the academies studied provided instruction in agriculture.

TABLE 3

NUMBER OF ACADEMIES PROVIDING VOCATIONAL INSTRUCTION
(BY OCCUPATIONAL CATEGORY)

<u>Occupational Category</u>	<u>Number of Academies</u>
Business	22
Surveying	19
Navigation	17
Teaching	14
Technology	4
Agriculture	2

Table 3 provides a raw count of academies offering instruction in various occupational fields. What such data do not resolve are differences in vocational effort existing across the six categories, or from one school to another.

To gain a greater perspective concerning the vocational nature of instruction taking place in the 1840's and 1850's, brief descriptions of typical courses and programs in the six occupational categories are given here.

Agriculture

Of the six occupational fields identified, agriculture was least widely distributed, appearing in only two academies. Where it did exist, in Freehold Institute and the West Jersey Collegiate School, agricultural instruction was provided through comprehensive programs that included both practical and scientific courses. These included: general agriculture, horsemanship, land surveying, practical mensuration, agricultural chemistry, geology, botany, horticulture, the preparation and application of fertiliz-

ers, and natural philosophy.

Academies located in eastern Pennsylvania and southeastern New York State did not appear to offer vocational courses in agriculture. In both of these states and New Jersey, a number of manual labor schools were providing farm experiences for their students; but these experimental offshoots of Pestalozzi's farm and industrial schools saw agricultural work as wholesome exercise and a way to reduce school expenses, not as vocational preparation.

Agricultural education was also taking place in short-term, adult institutes and lyceums sponsored by agricultural societies and in specialized schools, such as the Farm High School of Pennsylvania.

According to Miller (30), agricultural chemistry was given in 35 New York State academies in 1855; but by 1870 no such course was reported. This flurry of interest corresponded in time with an agricultural chemistry program in Yale College, a school which briefly served as the Land Grant College of Connecticut. John A. Porter, M.D., who was professor of agricultural chemistry at Yale, published a long and detailed, "Plan of an Agricultural School," in the March 1856 edition of the "American Journal of Education," (31) which called for the combination of practical and scientific farming. Porter advocated separate production and experimental farms, a museum of farm products and agricultural implements, and the inclusion of a veterinarian hospital and science laboratories.

Business Education

Some form of business education was taught in 22 of the 25 academies studied. Although at least half of these academies, including Chester Institute, Morris Academy and the Oaklands School, offered only a single class in bookkeeping, others, such as Newark Academy, Newark Wesleyan Insti-

tute, Freehold Institute and the West Jersey Collegiate School in New Jersey, as well as Bleck's, Hopewell and Weaversville Academies in Pennsylvania, had departments of business, offering three or more commercial subjects. Among the courses included in these programs were single and double entry bookkeeping, business arithmetic, shorthand, rapid calculation, commercial law, commercial English, commerce, and commercial science.

Technology (Civil, Industrial, Mechanical)

In a period when engineers--people who understood both scientific principles and practical applications--were in growing demand, it seems that academies were only flirting with technical education, and not making heavy commitments. Four New Jersey schools, two in Newark, along with Freehold Institute and the West Jersey Collegiate School, showed some disposure toward technical education by offering such courses as mechanical drawing, arts and manufactures, mechanics, and engineering, but in none of these could be found a comprehensive program of instruction with definite vocational objectives.

Miller's study found that 11 New York academies were teaching technology, and 32 had a course in civil engineering in 1850. (32) In 1856 engineering was offered in 20 academies. What these data do not reveal is whether any academies were providing clusters of technical and related subjects in some kind of organized curriculum. From the evidence found in the present investigation, it may be assumed that they were not.

Navigation and Surveying

Typically offered through mathematics departments, both navigation and surveying were taught in 17 of the 25 academies studied. Although some of these courses, like the land surveying programs in Delaware Academy, New York and Freehold, N.J. Institute, and a sea navigation sequence of Newark

Weslyan, were apparently designed to develop vocational competencies, many others were apparently not. As cited by Sizer, "many of these courses were taught from a book." (33)

From the data available, it can be concluded that navigation and surveying were taught as vocational subjects in a small proportion of the total number of schools where such course titles were reported.

Principles of Teaching

The significant role of mid-19th century academies as the principal vehicles for teacher preparation, and the series of events that led to their decline in favor of single-purpose normal schools are topics for research that go far beyond the scope of this study. Of importance here is the fact that 14 of the 25 academies studied had normal departments which prepared students, frequently those lacking financial means, for employment as elementary school teachers.

Beyond the fact that all Pennsylvania academies, with the exception of the Hopewell Classical and Mercantile School, were preparing teachers and that four of ten New Jersey academies studied, and three of seven New York schools had such instruction, few details about their programs could be found in catalogs and other descriptive materials. Weaversville Academy of Allentown, together with Acadian Institute of Orwigsburg and Cedar Hill Female Seminary (all in Pennsylvania) were reported to have extensive programs in teacher preparation. What constituted these programs was not made clear.

The most specific information regarding the curriculum of teaching programs is found in Miller's study, where it is stated that the New York State Law of 1834 established the first state system for the preparation of common

school teachers in the country. (34) From this legislative action the Regents were empowered to direct monies from the state literary fund to the establishment of normal departments. Having considerable discretionary powers, the Regents established laboratory and library standards for such departments, designated eight academies, one for each senatorial district, as eligible for special grants, and prescribed a three-year curriculum in teacher preparation.

The requirements for admission to New York teachers departments were the same as those for admission to higher English departments. The curriculum prescribed for the proposed teaching departments was to include: "English, writing and drawing, arithmetic and bookkeeping, geography and general history, history of the United States, geometry, trigonometry, mensuration and surveying, natural philosophy and the elements of astronomy, chemistry and minerology, constitution of the United States and of the State of New York, parts of the laws of the State of New York, moral and intellectual philosophy, and the principles of teaching." (35)

STATE AND REGIONAL DIFFERENCES

From an examination of the vocational offerings in 25 academies, it was found that curricular patterns were quite similar from one state to another and across regions within these states. New Jersey, with well-established agricultural programs in two academies and technology courses in four, exhibited the greatest diversity; New York academies, already conforming to the authority of its State Board of Regents, had a more standardized curriculum; in Pennsylvania academies were heavily involved in teacher preparation.

The main regional differences were found in Eastern Pennsylvania

where the German influence was strong. In the Allentown-Bethlehem area Moravian schools, established in the mid-1700's, were predominantly German-speaking or bilingual. Non-denominational English-speaking academies were not introduced to this region until the early 1800's, when new people involved in the westward migration and the growing iron industry demanded "American" schools. These new non-denominational academies seemed less prone to follow the Latin grammar school traditions exhibited in Chester County along the lower Delaware. Conservative in their resistance to coeducation, they made important commitments to vocational instruction, with comprehensive programs in both business and teaching.

Although the aggregate curriculum patterns, from one state or region to another, had more similarities than differences, there were sharp contrasts between individual academies in terms of their vocational commitment. To explore the specific nature of these differences, five academies located in New Jersey have been studied in some depth. Located in Newark, Morristown, Chester, Freehold and Mount Holly, these institutions are illustrative of the individuality and diversity which typified mid-19th century academies.

Five Academies in New Jersey

New Jersey academies were products of two main stages of development. The first of these, beginning in the late colonial period and extending into the first decade of the 19th century, was a time when academies were emerging as successors to Latin grammar schools in the older towns and cities. Newark, Elizabeth, Morristown, New Brunswick and Trenton all had such academies prior to 1800.

The second wave of academy development, which had parallels in New York and Pennsylvania, corresponded with population growth, an emerging middle class and improvements in transportation. Two of the schools here discussed, Morris and Newark Academies, were representative of the early state of de-

velopment; the other three, Chester and Freehold Institutes and the West Jersey Collegiate School, were part of the later period.

Morris County, which was the site of a permanent military encampment during the American Revolution, had at least two academies in operation during the 1850's. Morris Academy, founded in the village of Morristown in 1791, and Chester Institute, which opened in 1854, were examples of schools which devoted most of their energies to college preparation.

Describing itself as the premier college preparatory institution of the region, the Morris Academy named Harvard, Princeton, Brown and Yale among the colleges attended by its graduates. (36) The curriculum was organized around three departments: Classical, Preparatory and General. The General Department, unlike that of many other schools of the time, was primarily concerned with college preparation, rather than serve as a catch-all of terminal subjects. According to an 1865 mission statement, the purpose of the General Department was to prepare students for admission to scientific schools and colleges. The courses listed in this curriculum included Latin, mathematics, several sciences, and modern languages.

Providing no program for the preparation of teachers, the only subject listed in the Morris Academy curriculum, which might have had a vocational objective, was one in bookkeeping.

Chester Institute, located in a small village west of Morristown, was representative of a growing wave of schools placed in rural settings to escape "the dangers and temptations of cities." The ten mile stagecoach trip from the nearest rail line was described in the Institute's promotional material as a special benefit, since it would protect students from the influence of "rowdy toughs" who frequented railroad depots. (37)

Something of a frontier mining and lumber community, the Village of Chester probably had its own share of rowdy toughs, as it had iron mines, bars, distilleries, livery stables, sawmills and blacksmith shops in its vicinity. Clearly modeled on the Morris Academy, Chester Institute set college preparation as its main goal, although it did have courses in bookkeeping, navigation and surveying.

Three academies, established in Newark, Freehold and Mount Holly, represented a marked contrast with those of Chester and Morristown. Designed to prepare students for many career options and catering to an emerging commercial class, these schools reflected the dramatic changes taking place in American society.

Newark Academy, founded before the American Revolution in a busy commercial center destined to become the largest city in New Jersey, was an early prototype of the multi-purpose secondary school.

In 1774, the Newark Town Council authorized the use of common land for the establishment of an academy. Its building burned by the British in 1780, the Academy went out of business until 1791, when a construction project was authorized. As was common practice in the early days of academy development, the State Legislature granted permission in 1794 for the operation of a lottery to raise money for this community institution. (38)

As early as 1800, the Newark Academy had begun to teach practical courses--mensuration, surveying, navigation and bookkeeping-- "in short, every branch requisite to accomplish a young gentleman in the useful and agreeable." (39)

By 1850, the range of vocational subjects had been extended to include an array of commercial offerings, courses in engineering and mechanics, and

a normal department, with a curriculum "prescribed by the Regents of the University of New York." (40)

In the period between 1828 and 1836, the Newark Academy permitted the use of one of its rooms to serve as a library and lecture hall for the Newark Mechanics Institute. (41) Such institutes, which provided opportunities for self improvement, as well as social and political activities for skilled tradesmen, were especially popular during the 1830's. This development, which corresponded in time with a dramatic increase in union memberships--from 26,000 in 1834 to 300,000 in 1837--lost much of its steam in the panic of 1837. (42)

The Freehold Institute, (43) founded in 1844, gave a heavy emphasis to agricultural study, while still maintaining the more typical programs in Latin and Greek and general academic studies.

Located in a prosperous farm market and transportation center, about two miles from the Monmouth Battle Field, site of Molly Pitcher's Well, the Freehold Institute provided a three year curriculum for boys aged 12 to 16. The three main programs of study were Preparatory, Classical and Middle.

The preparatory and classical concentrations in Freehold were similar to those found in most other academies of the period, but the curriculum of the Middle Department was unique. "Intended to prepare boys for agricultural or commercial pursuits" it had an array of practical subjects. Integrated into the three year sequence, the agriculture concentration provided instruction in agricultural chemistry, geology, botany, general chemistry, practical mensuration, surveying and preparation and application of fertilizers.

Another agricultural program at Freehold was a Winter Course of 21 weeks, which appeared to have about the same specialization courses as the full

program, but it probably did not have the same academic and classical requirements.

Noting that the Institute had 73 students enrolled, the 1859 Catalog reported that 47 of these were matriculated in the Middle Department, 21 were taking classics, and only five were in the preparatory program. (44) Apparently, the students enrolled in the special Witner Course in agriculture were not counted in this tabulation.

The West Jersey Collegiate School of Mount Holly was the third New Jersey academy to have an extensive array of vocational courses and programs. Established in 1846, West Jersey was only the second of the 25 academies studied to teach agriculture.

The mission statement of the West Jersey School set forth its multiplicity of purposes as follows:

The school is designed to prepare boys, by a liberal, thorough, and practical education, for college, the study of a profession, the counting room, or any business of life which literary and scientific acquirements may improve and adorn. (45)

Three departments--mathematics, commercial science and arts and manufactures--provided vocational instruction in the West Jersey School. Stressing practical applications, the mathematics department offered courses in mensuration, land surveying and navigation. The commercial science concentration had single and double entry bookkeeping, objects of commerce, and possibly some other business courses treated in its catalog under "etc."

According to its 1849 Prospectus, (46) the agricultural offerings were listed under a Department of Arts and Manufactures. From this title, copied no doubt, from the famous Ecole Centrale des Arts et Manufactures established in Paris just twenty years before, one might assume that the West

Jersey Collegiate School was teaching some form of engineering technology. Examination of the courses offered under this heading revealed, however, that the program was more closely related to agriculture, with courses in general agriculture, horsemanship, horticulture, natural philosophy and chemistry.

THE MULTI-PURPOSE MISSION OF ACADEMIES

This section of the investigation was designed to test a hypothesis that the academy movement had a significant effect on the later development of such multi-purpose institutions as the public high school and the land grant college. A related question sought to examine the influence of academies on the wave of specialized, single purpose schools and colleges that followed in their wake.

A first step has been one of identification: what types of educational institution assumed some part of the mission or curriculum that had been found in mid-19th century academies?

By the 1870's, no less than nine types of school or college could be so identified:

Multi-purpose Institutions

Public high schools
Liberal arts colleges
Land grant colleges

Specialized Institutions

Private business schools
Agricultural schools
Technical institutes
Engineering colleges
College preparatory schools
Normal schools

Of the three types of multi-purpose institution found to exist after the Civil War, only the public high schools and land grant colleges were involved in vocational education. The liberal arts colleges, concentrating on fine arts, humanities, mathematics and sciences, were multi-purposed only in the sense that they were preparing students for "life" or for advanced study in one of the professions.

The evidence is clear that the public high schools which developed between 1850 and 1880 were largely a product of the academy's influence. As noted by Sizer, many of the early high schools were designated as "free academies"; frequently, the new tax-supported schools assumed the building, faculty, curriculum, and even the headmaster of the academy. Typically, the public schools narrowed the scope of their offerings, keeping Latin but dropping Greek, and reducing the number of their vocational offerings. (47)

Public high schools readily took on responsibility for teaching courses in the field of business and, during a period of transition, a few maintained teaching departments, but the other vocational courses tended to disappear. Miller's New York State data shows that the number of courses in bookkeeping rose from 136 in 1850 to 448 in 1900, whereas navigation, surveying, engineering technology and teaching had faded out of the secondary school curriculum by the 1870's. (48)

The second part of the hypothesis proposed that the land grant colleges were influenced by academies in terms of their commitment to both academic and vocational goals. The example of more than six thousand academies in operation during the 1850s, with their widespread involvement in both practical and academic education, must have been noted by the proponents of "peoples colleges." But, from the evidence on hand, a clear case of cause and effect cannot be made. It appears likely that Turner of Illinois, the chief architect of the land grant college movement, drew his inspiration more from such sources as the Free School Society, mechanics institutes, agricultural societies and manual labor schools, than from academies. Citing the failure of "elitist academies" to address the educational needs of common people, Turner called for an entirely new kind of institution. (49)

The Role of Academies in Teacher Preparation

In 1852 when the academy movement was in full flower, only seven normal schools were reported to exist in the country. The prevailing vehicle for elementary teacher preparation was the academy. In New York State, more than 100 academies had normal departments; their programs, prescribed by the State Board of Regents, incorporated the study of common branch subjects, together with instruction in the principles of teaching. Serving as a model for many other states, the New York system of teacher education provided subsidies to academies and scholarships for students who would become teachers. By the 1860's however, the mantle of responsibility for teacher preparation had begun to pass from academies to the normal schools.

Among the reasons for this rapid change in direction was the simple fact that public normal schools were looked upon as logical adjuncts to the common school movement, whereas academies, with their roots in elitist classical education, were not. Another factor may have been emotional. Common school teachers trained in academies, once they began to band together in state and regional associations, took a leading role in the drive for separate and specialized normal schools. One of the reasons for their rejection of academies could have come from the fact that while academy students, they were treated as second class citizens. Typically identified as "poor but worthy" or "persons of the poorest sort," these scholarship students were segregated by class and by curriculum. Surely, many suffered from social indignities in academy settings. Once in the workforce, these former charity cases took steps to improve the dignity and professional standing of teaching.

ROLE OF ACADEMIES IN THE HISTORY OF VOCATIONAL EDUCATION
IN THE UNITED STATES

The final question of this study sought to determine whether or not the American Academy Movement had any significant role on the subsequent development of vocational education.

Looking back on the academy age from a modern perspective, it can be seen that academies were making important contributions to vocational education in the fields of business and elementary school teaching. The programs in agriculture, although limited to two academies, both located in New Jersey, were clearly vocational in terms of substance and purpose. Of the variety of vocational courses and programs attempted by mid-19th century academies, only business education was readily accepted by the new public high schools. Although teaching programs were continued by some academies and high schools until near the end of the century, the principal responsibility for such instruction was taken over by normal schools, especially those supported with public money.

Courses in engineering technology, which never gained a solid foothold in academies, were given new dimensions in specialized technical schools and engineering colleges. The technical high schools which appeared on the American scene in the early 1900s, were not so much the products of academy influence as they were specialized manifestations of the manual training movement.

Agricultural education, which had been given limited consideration in the Middle Atlantic states, was found more in specialized schools than in academies or public high schools. By the 1880s, a rising tide of sentiment for publicly supported schools of agriculture--of less than college grade--

was being generated by agricultural societies, grangers, publishers of farm journals, and rural populists.

Navigation and surveying, which only assumed vocational proportions in a few of the academies where they were offered, either disappeared from high school curricula, or they were subsumed in departments of mathematics or science.

Summary

The American academy movement represented a benchmark in an extended drive toward popular, secular and practical education. With roots in the late Middle Ages, this 400-year process was stimulated by the invention of letter press printing during the 1400's, and raised in intensity by Protestant revolts against the established Roman church. The dramatic changes in agriculture, commerce, manufacturing and social institutions, which were contributing elements to the industrial revolution, had a direct influence on schools and schooling. The American academy, derived in part from English and German models was unique in its pragmatic approaches to educating the emerging middle class, including its female members, in "all things useful and all things ornamental."

If not especially effective as instruments for vocational instruction in certain occupational fields, the American academies have still made an important contribution to the vocational cause. As pioneering institutions, attempting to achieve a broad range of educational goals, the academies were breaking new ground in the revolutionary transition of vocational preparation, from its traditional locus in the workplace toward a much greater emphasis on school-based programs. Responding to the demands of technological change, academies were among the vanguard of educational institutions attempting to

provide their students with skills and competencies useful in the industrial and commercial world. If their efforts were often inadequate or inept, it must be recognized that academies were engaged in experimental new ventures which did not have the benefit of a traditional body of experience. To use the jargon of the 20th century, the American academies of the 1800's were innovative and exemplary models of school-based vocational education in multi-purpose delivery systems.

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

The purpose of this investigation has been to explore the nature and extent of vocational education in 25 academies. Four subordinate questions, relating to the distribution of specific vocational courses and programs, state and regional differences, the multi-purpose mission of academies, and the place of the academy movement in the history of vocational education, have been addressed.

Findings

It was found that all but three of the academies studied offered at least one course that could be termed vocational. Six occupational categories were identified. agriculture, business, navigation, surveying, teaching and technology. Of these, business was offered in the largest number of academies, 22, and agriculture in the least, occurring in only two schools, both located in New Jersey.

The 25 academies studied showed considerable uniformity in their distribution of classical and general academic courses. In their commitment to vocational education, however, a much greater degree of diversity was found. Although three of these academies provided no form of vocational instruction, twelve offered ten or more courses each in as many as six occupational categories.

The principal regional differences were found in the German sections of eastern Pennsylvania, where the influence of English classical schools was less pronounced than in Philadelphia and along the lower Delaware. New York academies, already coming under the authority of the State Board of Regents, showed less variability and a more limited commitment to vocational instruction than were found in New Jersey and Pennsylvania. But state and regional differences in vocational programs were negligible, when compared with the sharp contrasts found to exist between individual academies, especially in New Jersey and Pennsylvania.

The multi-purpose nature of academies, with their leadership in the promotion of science education and teacher preparation, together with their pioneering efforts in coeducation, represent significant contributions to the advancement of secondary and higher education in the United States. Educational institutions following in the wake of the academy movement, including public high schools, normal schools, and specialized agricultural and technical schools, carried on some phase of education that had been attempted by academies.

The final question of the study sought to assess the contribution of the academy movement to the history of vocational education in the United States. Finding that academies were indeed involved in several aspects of vocational instruction, and that they had a direct influence on the public high school, there appears to be no question that the saga of the academy movement deserves some greater degree of attention from historians of vocational education.

If the depth and quality of vocational instruction in academies was less than adequate, it must be noted that many of these schools were at a growing edge of experimentation. Lacking suitable models, or established

traditions for vocational education in school settings, and relatively free from the fetters of state domination, these schools, in a period when the people of the new nation were filled with boundless optimism, attempted more than they could accomplish. But even their abortive failures were foundations to the more efficient vocational education systems that came later in the 19th century.

The greatest contribution of the academy movement to the further development of vocational education in the United States was its pioneering role in the transformation of work-related routes to vocational competency--typically obtained through apprentice training--to school-based instructional models. Along with the more intermittent institutes for farmers, mechanics and teachers, together with specialized business, agriculture and technical schools, the American academies were part of a revolutionary shift. Driven by the exigencies of technological change, this new emphasis on practical schooling, superimposed on a classic tradition, established important precedents for the educational systems we have today.

Other findings had to do with dominant role of the New York State Board of Regents, which appeared to limit and focus the range of vocational offerings in that state, the greater degree of experimentation encountered in New Jersey academies, and the existence of transitional "teachers schools" in Pennsylvania which, during the 1850's, served as bridges between academies and normal schools.

Conclusions

This exploratory study, limited in geographical range and number of academies, should be more useful as an aid to the identification of topics for further research than as a source of generalizable data. Recognizing that the vocational dimensions of academies located in the old South or the new West were not part of this work, and that the specific nature of instruction in various occupational fields were given limited treatment, conclusions drawn from the data must be considered to be preliminary and tentative. With these limitations in mind, the following conclusions are suggested:

1. Academy involvement in vocational education.

From the data gathered in this investigation, which included mission statements and curriculum descriptions of academies located in three Middle Atlantic states, it is clear that many academies were attempting to provide for the development of vocational competencies in a variety of occupational fields.

2. Failure of academies to do all things useful and ornamental.

The ambitious attempt of academies to combine classical, general academic and vocational instruction in one institution, from limited financial bases, was doomed to failure. Lacking competent teaching personnel to deliver high quality instruction in the hundreds of courses listed, and limited in financial resources to teach a variety of technical subjects, the academies typically fell short of their stated goals.

3. Role of Academies in school-based vocational education.

American academies played a significant role in the revolutionary shift from work-based apprentice training for the develop-

ment of job competencies to school-based vocational training. This shift, beginning in the late 18th century has been closely associated with technological changes which placed a growing emphasis on the study of applied mathematics and sciences and subjects with specific vocational goals.

4. Other significant contributions of the academy movement.

Despite their shortcomings, 19th century American academies made significant contributions to the advancement of coeducation and in their promotion of secondary and higher education for a broader social spectrum.

Recommendations

The nature and scope of vocational education in 19th century American academies, which was examined in this exploratory study, is a field of inquiry that begs for further inquiry. More needs to be known about the curriculum of academies established along the expanding crescent of the western movement and how the exigencies of frontier life may have affected their involvement in vocational instruction. Some information is available to suggest that academies in new states including Ohio, Texas, Indiana, and Illinois were more prone to include agricultural and mechanical instruction than eastern schools, but the specific nature of this phenomenon needs documentation. Also missing is a thorough analysis of the contribution academies made to the field of teacher education, including the study of transitional "teachers academies" and other specialized forerunners of state normal schools. Of particular interest to education historians should be the series of events which led teacher education away from multi-purpose academies and liberal arts colleges to single-purpose normal schools. This

century-long adventure in common branch pedagogy, which has only recently given way to a liberal arts model, appears to have had a profound effect upon the quality and professional status of teachers in this country.

The role of the academy in the sudden shift from work-based apprentice training to the variety of schools encompassing vocational instruction, which took place mainly during the last half of the 19th century, appears to be a most important topic for further research. Here may be found some of the roots to our contemporary treatment of vocational education and the developing posture of the federal government in these systems.

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